

I claim:

1. A fiber optic cable, comprising:
an outer layer;
at least one optical fiber disposed inside said outer layer; and
5 a gel-swellable portion and water resistant gel positioned adjacent to each other and
disposed between said outer layer and said optical fiber;
wherein said gel-swellable portion absorbs at least some of said gel.
2. The fiber optic cable according to claim 1, wherein said gel-swellable portion
is a continuous layer surrounding said at least one optical fiber.
3. The fiber optic cable according to claim 2, wherein said continuous layer has
an uneven thickness.
- 15 4. The fiber optic cable according to claim 1, wherein said at least one gel
swellable portion has a smooth surface.
5. The fiber optic cable according to claim 1, wherein said at least one gel-
swellable portion is adhered to an outer surface of said at least one optical fiber.
- 20 6. The fiber optic cable according to claim 1, wherein said at least one gel-
swellable portion is adhered to an inner surface of said outer layer.

7. The fiber optic cable according to claim 1, wherein said at least one gel-swappable portion extends longitudinally along the length of said at least one optical fiber.

8. The fiber optic cable according to claim 1, wherein said at least one gel-swappable portion has an uneven thickness.

9. The fiber optic cable according to claim 1, wherein said gel-swappable portion has a density less than 0.90 g/cc.

10. The fiber optic cable according to claim 1, wherein said gel-swappable portion is one of a copolymer or terpolymer of polyethylene.

11. The fiber optic cable according to claim 1, wherein said gel-swappable portion swells more than 10% at 85°C.

12. The fiber optic cable according to claim 1, wherein said gel is a polyolefin oil based gel.

13. The fiber optic cable according to claim 1, wherein said gel-swappable portion is a polyolefin swappable material.

14. The fiber optic cable according to claim 1, wherein said gel-swella-
ble portion is softer than said outer layer.

15. A fiber optic cable, comprising:
an outer layer;
at least one optical fiber ribbon disposed inside said outer layer; and
a gel-swella-
ble layer and a water resistant gel positioned adjacent to each other and
disposed between said outer layer and said ribbon;
wherein said gel swella-
ble layer absorbs at least some of a said gel.

16. The fiber optic cable according to claim 15, wherein said gel-swella-
ble portion is a continuous layer surrounding said at least one ribbon.

17. The fiber optic cable according to claim 16, wherein said continuous layer has
an uneven thickness.

18. The fiber optic cable according to claim 15, wherein said at least one gel
swella-
ble portion has a smooth surface.

19. The fiber optic cable according to claim 15, wherein said at least one gel-
swella-
ble portion is secured to an outer surface of said at least one ribbon.

20. The fiber optic cable according to claim 15, wherein said at least one gel-swella-
ble portion is secured to an inner surface of said outer layer.

21. The fiber optic cable according to claim 15, wherein said at least one gel-
5 swella-ble portion extends longitudinally along the length of said at least one ribbon.

22. The fiber optic cable according to claim 15, wherein said at least one gel-
swella-ble portion has an uneven thickness.

23. The fiber optic cable according to claim 15, wherein said gel-swella-ble layer
has a density less than 0.90 g/cc.

24. The fiber optic cable according to claim 15, wherein said gel-swella-ble layer is
one of a copolymer or terpolymer of polyethelene.

25. The fiber optic cable according to claim 1, wherein said gel-swella-ble layer
swells more than 10% at 85°C.

26. The fiber optic cable according to claim 15, wherein said gel is a polyolefin oil
20 based gel.

27. The fiber optic cable according to claim 15, wherein said gel-swella-ble layer is
a polyolefin swella-ble material.

28. The fiber optic cable according to claim 15, wherein said gel-swella-
ble portion is softer than said outer layer.

5 29. A fiber optic cable, comprising:
an outer layer, having at least one gel-swella-
ble portion adhered to an inside surface
of said outer layer;
at least one optical fiber; and
a water resistant gel disposed between said at least one optical fiber and said outer
layer;
wherein said gel-swella-
ble portion absorbs at least some of said gel.

30. The fiber optic cable according to claim 29, wherein said gel-swella-
ble portion is a continuous layer on said inner surface of said outer layer.

31. The fiber optic cable according to claim 30, wherein said continuous layer has
an uneven thickness.

32. The fiber optic cable according to claim 29, wherein said at least one gel-
swella-
ble portion has a smooth surface.

33. The fiber optic cable according to claim 29, further comprising at least one
other gel-swella-
ble portion adhered to an outer surface of said at least one optical fiber.

34. The fiber optic cable according to claim 29, wherein said at least one gel-swappable portion extends longitudinally along the length of said outer layer.

5 35. The fiber optic cable according to claim 29, wherein said at least one gel-swappable portion has an uneven thickness.

36. The fiber optic cable according to claim 29, wherein said gel-swappable portion has a density less than 0.90 g/cc.

37. The fiber optic cable according to claim 29, wherein said gel-swappable portion is one of a copolymer or terpolymer of polyethelene.

38. The fiber optic cable according to claim 29, wherein said gel-swappable portion swells more than 10% at 85°C.

39. The fiber optic cable according to claim 29, wherein said gel is a polyolefin oil based gel.

40. The fiber optic cable according to claim 29, wherein said gel-swappable portion is a polyolefin swappable material.

41. The fiber optic cable according to claim 29, wherein said gel-swellable portion is softer than said outer layer.

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